

PATENT COOPERATION TREATY

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21 APR 2005

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

INVITATION TO PAY ADDITIONAL FEES

(PCT Article 17(3)(a) and Rule 40.1)

REGISTERED MAIL

To:

KIMURA, Mitsuru
2nd Floor, Kyohan Building, 7,
Kandanishiki-cho, 2-chome,
Chiyoda-ku, Tokyo 100-0054
JAPAN

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Date of mailing
(day/month/year)

08/04/2004

Applicant's or agent's file reference

03C018 - PCT

PAYMENT DUE

within 45 ~~xxxx~~ days/days
from the above date of mailing

International application No.

PCT/JP 03/15013

International filing date
(day/month/year)

25/11/2003

Applicant

CASIO COMPUTER CO., LTD.

1. This International Searching Authority

- (i) considers that there are 4 (number of) inventions claimed in the international application covered by the claims indicated ~~below~~ on the extra sheet:

and it considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated ~~below~~ on the extra sheet:

- (ii) ☒ has carried out a partial international search (see Annex) ☐ will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.:

1 - 6, 25, 27, 29, 31

- (iii) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid

2. The applicant is hereby invited, within the time limit indicated above, to pay the amount indicated below:

EUR 945,00 x 3 = EUR 2.835,00
Fee per additional invention number of additional inventions total amount of additional fees

Or, _____ x _____ = _____

The applicant is informed that, according to Rule 40.2(c), the payment of any additional fee may be made under protest, i.e., a reasoned statement to the effect that the international application complies with the requirement of unity of invention or that the amount of the required additional fee is excessive.

3. ☐ Claim(s) Nos. _____ have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(2)(a) and therefore have not been included with any invention.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Wolfgang-Peter Schießl

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-6,25,27,29,31

Horizontal pixel number of the display panel is approximately equal to the horizontal pixel number, or half of the number thereof, suitable for the generation of the video signals for the first television system

2. Claims: 7,16

Reduction of complexity for the transfer of image data to the display

3. Claims: 8-11,15,24

2 horizontal pixel number conversion means

4. Claims: 12-14,17-23,26,28,30,32

Usage of video memory

1. Reference is made to the following document:

D1: US 2001/006579 A1 (YATSUGI TOMISHIGE ET AL) 5 July 2001
(2001-07-05)

2. Independent apparatus claims 1, 17, 25, 26, 27, 28, 29, 30 and independent method claims 31 and 32 have the following common concept:

An image signal generation unit comprising :

a horizontal pixel number conversion means for converting horizontal pixel number of a digital image data to a number suitable for generation of video signals for first television system;

a first output means for digitally outputting the digital image data to a driving circuit of a display panel.

3. The subject-matter of the common concept is not novel as it is already disclosed in D1.

Document D1 (the references in parentheses applying to this document) discloses:

An image signal generation unit (see paragraph 1: A camcorder is a image signal generation unit) comprising :

a horizontal pixel number conversion means for converting horizontal pixel number of a digital image data to a number suitable for generation

of video signals for first television system (see paragraphs 32, 40, 45 and Fig. 4: The DSP 405 is the horizontal pixel number conversion means which converts the pixel signal from the sensor or the digital pixel data of the hard disk to a pixel number suitable for the generation of PAL or NTSC television signals);

a first output means for digitally outputting the digital image data to a driving circuit of a display panel (see paragraph 40, 45 and Fig. 4: The block 405 drives the display panel 201 according Fig. 4. The image data are forwarded to block 405 in a digital manner from blocks 404 or 409. Therefore block 405 is a output means for digitally outputting the digital image) .

Hence all the features of the common concept are known.

4. As the subject-matter of the common concept linking apparatus claims 1, 17, 25, 26, 27, 28, 29, 30 and independent method claims 31 and 32 is not novel, there is no common inventive concept linking the before mentioned claims.

4.1 There are 2 groups of independent claims.

4.1.1 Apparatus claims 25, 27, 29 and method claim 31 contain the subject-matter of claim 1 or correspond to it. The subject-matter of these independent claims is characterised in that the horizontal pixel number of the display panel is approximately equal to the horizontal pixel number, or half of the number thereof, suitable for the generation of the video signals for the first television system.

Document D1 already discloses a liquid crystal display in paragraph 48, which uses approximately half of the horizontal pixel number of a NTSC system. Therefore this part of the common concept of claims 1, 25, 27, 29 and 31 is not new (Article 33(2) PCT). The usage of a display having approximately the same horizontal pixel number as the TV system is obvious for the person skilled in the art. This alternative part of the common concept of claims 1, 25, 27, 29 and 31 is not inventive (Article 33(3) PCT). Therefore also claims 1, 25, 27, 29 and 31 are not linked by a common inventive concept. Therefore claims 1, 25, 27, 29 and 31 have been put into invention 1. Claim 1 is the only claim of this group having dependent claims. The concept of these dependent claims is analysed in section 5 of this communication.

4.1.2 Apparatus claims 17, 26, 28, 30 and method claim 32 contain the subject-matter of claim 17 or correspond to it. These claims are linked by the usage of a video memory providing digital image data and by a first generation means for generating digital video signals compliant with the first television system from digital image data with the horizontal pixel number converted by the first horizontal pixel number conversion means, and second output means outputting video signals generated by the first generation means.

Document D1 discloses already the first generation means for generating digital video signals compliant with PAL or NTSC (see D1 paragraphs 40, 41 and Fig. 4) and second output means outputting video signals generated by the first generation means (see paragraph 40 and Fig. 4, reference 416). But D1 does not disclose the usage of a video memory for

providing digital image data to the first output means. Therefore independent claim 17 and its dependent claims 18-23, and independent claims 26, 28, 30 and 32 have been put into the invention "video memory for providing image data to the first output means". This concept solves the problem of adapting the image data to the first output means.

5. The subject-matter of claim 1 is the common concept linking its dependent claims 2, 3, 4, 7, 8, 12, 15 and 16. As the subject-matter of claim 1 is not novel (see section 3 and section 4.1.1 of this communication) these claims are not linked by a common inventive concept.

5.1 The subject-matter of claim 2 discloses that the horizontal pixel number converted into 352, 704 or 1408 pixels. Document D1 discloses in paragraph 48 the conversion to 352 pixels for a display. It also discloses the usage of NTSC as a first television system (see D1, paragraph 40). It is obvious for the person skilled in the art that the usage of 704 pixel is a proper design measure for NTSC. Therefore the subject-matter of claim 2 is not inventive (Article 33(3) PCT). Claim 2 has been put into invention 1 which solves the problem of how to reduce the complexity of converting the pixel number of the image data to the pixel data of the image unit.

5.2 The subject-matter of claim 3 discloses the usage of NTSC as first television system. D1 discloses the usage of NTSC in paragraph 40. Therefore the subject-matter of claim 3 is not novel (Article 33(2) PCT). Therefore claim 3 also has been put into invention 1.

5.3 The subject-matter of claim 4 discloses the generation of video signals for the first television system and the output of this video signals. Both is disclosed in document D1 (see paragraph 40 and Fig. 4: NTSC or PAL signals are generated. The output is reference 416). Therefore the subject-matter of claim 4 is not novel (Article 33(2) PCT). Claim 4 has been put into invention 1.

5.4 The subject-matter of claim 5 discloses the possibility of generating video signals for a second TV system. Also this feature is already disclosed by D1 in paragraph and Fig. 4 as both PAL and NTSC TV signals can be generated. Therefore the subject-matter of claim 5 is not novel. Claim 5 has been put into invention 1.

5.5 The subject-matter of claim 6 explicitly states that the second TV system is PAL. This is already disclosed in D1 paragraph 40. Therefore claim 6 has been put into invention 1.

5.6 The subject-matter of claim 7 discloses the transfer of the image signal by digital RGB signals to the display. This subject-matter has been put into invention 2. Invention 2 solves the problem of how to reduce the complexity for the transfer of the image signals to the display.

5.7 The subject-matter of claim 8 discloses the usage of two horizontal pixel number conversion means. Therefore claim 8 and its dependent claims 9-11 has been put into invention 3. Invention 3 solves

the problem of how to handle different horizontal pixel numbers in the display and the TV signals.

5.8 The subject-matter of claim 12 discloses the usage of a video memory in front of the horizontal pixel number conversion means. Claim 12 and its dependent claims 13 and 14 have been put into invention 4 which solves the problem of adapting the image data to the first output means. As this is the same problem and the same solution as for the invention in section 4.1.2 also claims 17 and its dependent claims 18-23, and independent claims 26, 28, 30 and 32 have been put into invention 4.

5.9 The subject-matter of claim 15 describes the usage of displays where the horizontal pixel number is not in a relation to the horizontal pixel number of the TV system. Here the same problem as for invention 3 has to be solved (see section 5.7). Therefore claim 15 and its dependent claim 24 have been put into invention 3.

5.10 The subject-matter of claim 16 discloses the serial transfer of the digital data to the display. The problem to be solved here is like in section 5.6 how to reduce the complexity for the transfer of the image signals to the display. Therefore claim 16 has been put into invention 2.

6. For the reasons explained in sections 3-5 of this communication the technical relationship between the subject-matter of the 4 groups of inventions involving one or more of the same or corresponding special technical features required by Rule 13.1 PCT is lacking, and the requirement for unity of invention referred to in Article 3 (4) (iii) PCT is not fulfilled.

7. The application relates to a plurality of inventions, or groups of inventions, in the sense of Rule 13.1 PCT. They have been divided as defined above. If the applicant pays additional fees for one (or more) not yet searched group(s) of invention(s), then the further search(es) may reveal further prior art that gives evidence of a further lack of unity 'a posteriori' within one (or more) of the not yet searched group(s). In such a case only the first invention in this (each of these) group(s) of inventions, which is considered to lack unity of invention, will be the subject of a search.

No further invitation to pay further additional fees will be issued. This is because Article 17(3)(a) PCT stipulates that the ISA shall establish the International Search Report on those parts of the international application which relate to the invention first mentioned in the claims ('main invention') and for those parts which relate to inventions in respect of which the additional fees were paid. Neither the PCT nor the PCT guidelines provide a legal basis for further invitations to pay further additional search fees (W17/00, point 11 and W1/97, points 11-16).

1. The present communication is an Annex to the invitation to pay additional fees (Form PCT/ISA/206). It shows the results of the international search established on the parts of the international application which relate to the invention first mentioned in claims Nos.:

1-6, 25, 27, 29, 31

2. This communication is not the international search report which will be established according to Article 18 and Rule 43.

3. If the applicant does not pay any additional search fees, the information appearing in this communication will be considered as the result of the international search and will be included as such in the international search report.

4. If the applicant pays additional fees, the international search report will contain both the information appearing in this communication and the results of the international search on other parts of the international application for which such fees will have been paid.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/006579 A1 (YATSUGI TOMISHIGE ET AL) 5 July 2001 (2001-07-05) paragraphs [0001], [0002], [0010], [0011], [0031]-[0033], [0040], [0045], [0048], [0077] figures 4,5	1-6, 25, 27, 29, 31
A	--- US 2002/008760 A1 (NAKAMURA KENJI) 24 January 2002 (2002-01-24) abstract paragraphs [0025], [0042], [0046], [0050], [0056] figures 4, 5, 9, 10	1-6, 25, 27, 29, 31
A	--- WEN-HSIN CHAN ET AL: "VIDEO CCD BASED PORTABLE DIGITAL STILL CAMERA" IEEE TRANSACTIONS ON CONSUMER ELECTRONICS, IEEE INC. NEW YORK, US, vol. 41, no. 3, 1 August 1995 (1995-08-01), pages 455-459, XP000539491 ISSN: 0098-3063 abstract page 455 -page 456 figures 1,2 -----	1-6, 25, 27, 29, 31

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Patent Family Annex

Information on patent family members

International Application No

PCT/JP 03/15013

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 2001006579	A1	05-07-2001	JP	10004535 A	06-01-1998
			EP	0802688 A2	22-10-1997
			US	6226449 B1	01-05-2001

US 2002008760	A1	24-01-2002	JP	2001275029 A	05-10-2001

Important Information for Applicants outside Europe

10/532034

general

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- the **claims cannot be changed** at this point in the procedure, the transmitted report is **not** the ISR (see PCT Art. 19)
- non-payment does not lead to a **loss of rights**, a new procedure will be started on entry into the regional or national phase
- any payments have to be effected **directly** to this ISA (account details below), payments to other entities will not be accepted
- in case of a **total of more than 2 inventions** found: when paying please **specify exactly** which claims should be searched
- an **extension of the set time limit** cannot be granted, as the total number of days **must not exceed 45 days** (PCT Rule 40.3)

payment by cheque or money transfer:

- the **date of payment** is considered to be the **date the money is booked** in the EPO account
- faxed cheques are not considered to be a valid payment
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payments under protest according to Rule 40 PCT:

- the protest will **not be accepted without a payment** of additional search fee(s)
- the protest has to be **accompanied by a technical reasoning**
- no **protest fee** needs to be paid yet, only additional **search fee(s)**

Account Details

Euro accounts of the European Patent Organisation

N° 3 338 800 00 (BLZ 700 800 00)
Dresdner Bank
Promenadeplatz 7
D-80273 München
SWIFT Code: DRESDEFF700

N° 300-800 (BLZ 700 100 80)
Postbank AG
Bayerstr. 49
D-80138 München